

## **REMARKS**

The Applicants have carefully considered this application in connection with the Examiner's Action and respectfully request reconsideration of this application in view of the foregoing amendment and the following remarks.

The Applicants originally submitted Claims 1-20 in the application. Pursuant to a restriction requirement, Claims 1-14 were previously canceled without prejudice or disclaimer. Claims 21 and 22 were previously added, and Claim 21 was previously amended. The Applicants presently amend Claim 22 merely to correct an inadvertent error and without adding any subject matter to the claims, such that the amendment does not necessitate an additional search by the Examiner. The Applicants do not presently amend, cancel or add any other claims. Accordingly, Claims 15-22 remain pending in the application.

### **I. Claim Objection**

The Examiner object to Claim 22 as being in improper form because the dependent Claim 22 can not depend on itself. In response, the Applicants have amended Claim 22 to correct this inadvertent error and appreciate the Examiner's diligence in finding and bringing this error to the Applicants' attention. The Applicants therefore respectfully request the Examiner withdraw the objection.

### **II. Rejection of Claims 15 and 18-22 under 35 U.S.C. §102**

The Examiner has rejected Claims 15 and 18-22 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,383,858 to Gupta *et al.* ("Gupta"). The Applicants respectfully disagree.

Gupta fails to disclose each and every element of the claimed invention either expressly or inherently as recited in the rejected claims. For example, Gupta does not teach an electrode layer comprising the metal and located on the high-k dielectric layer and over and between the first electrodes to form interconnected second electrodes over and between the first electrodes, as recited in Claim 15. The Applicants note that FIGURE 2A of Gupta, cited by the Examiner is a plan view of one level of the capacitive structure 100, such as shown in FIGURE 4. FIGURE 4 depicts several dielectric layers 430 (Column 4, Lines 55-57) that serve to isolate the various layers of the IC (Column, Lines 47-48) and separate the first and second electrode elements 110, 120 in both directions of the array (Column 5, Lines 45-48). As such, the dielectric level located over and between the electrode elements 110, 120 for any one level shown in FIGURE 4 is not the same dielectric level that electrode element 120 and interconnect 220 are located on. Rather, electrode element 120 and interconnect 220 are located on an underlying dielectric layer. As clearly shown in FIGURE 4, the underlying dielectric layer is not the same dielectric layer that is over and between electrode elements 110, 120 or interconnects 210, 220.

Therefore, Gupta does not disclose each and every element of the claimed invention and as such, is not an anticipating reference. Because Claims 18-22 are dependent upon Claim 15, Gupta also cannot be an anticipating reference for Claims 18-22. Accordingly, the Applicants respectfully request the Examiner to withdraw the §102 rejection with respect to these Claims.

### **III. Rejection of Claims 16 and 17 under 35 U.S.C. §103**

The Examiner has rejected Claim 16 under 35 U.S.C. §103(a) as being unpatentable over Gupta in view of U.S. Patent No. 6,436,787 to Shih, *et al.* ("Shih"). The Examiner has also rejected

Claim 17 under 35 U.S.C. §103(a) as being unpatentable over Gupta. The Applicants respectfully maintain that the claimed invention is not obvious in view of the foregoing combined references, and that various combinations of these reference fail to establish a *prima facie* case of obviousness of Claims 16 and 17.

For instance, Gupta alone or the combination of Gupta with Shih do not teach or suggest all elements of the invention recited in independent Claim 15. As noted above, Gupta does not teach an electrode layer comprising the metal and located on the high-k dielectric layer and over and between the first electrodes to form interconnected second electrodes over and between the first electrodes. Moreover there is no suggestion or motivation of this element in Gupta, because Gupta's multiple dielectric layers isolate the various layers of the IC (Column, Lines 47-48). It is also apparent from the processing sequence presented by Gupta in FIGURES 4A-4C and the accompanying text, that multiple dielectric layers are deposited, each layer serving as the base for the next metal level (Column 4, Line 67 to Column 5, Line 44). Moreover, Shih fails to remedy the deficient teachings or suggestions of Gupta, because Shih fails to teach or suggest an interdigitated capacitor. In contrast, Shih merely teaches a capacitor having a conventional barrel-shape.

Accordingly, the combination of Gupta and Shih fails or Gupta alone fail to teach or suggest the invention recited in independent Claim 15 and its dependent claims. Therefore, the combination fails to support a *prima facie* case of obviousness of Claim 15 and its dependent Claims 16-22. The Applicants therefore respectfully request that the Examiner withdraw the rejection of Claims 16 and 17 under 35 U.S.C. §103(a).

#### IV. Conclusion

In view of the foregoing amendment and remarks, the Applicants now see all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicit a Notice of Allowance for Claims 15-22.

The Applicants request the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application.

Respectfully submitted,

HITT GAINES, P.C.

A handwritten signature in black ink, appearing to read "Charles W. Gaines", with a long horizontal stroke extending to the right.

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